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EXECUTIVE SUMMARY

This paper examines United States Telephone Association (USTA) proposals regarding interstate exchange access reform and provides an economic analysis of important access-related issues. The exchange access market continues to face significant competitive pressure as exhibited by increased numbers of providers, new product offerings and accelerating technological change. These developments call for a reevaluation of traditional regulatory constraints on incumbent local exchange carriers (ILECs) coupled with a policy shift towards greater reliance on market forces to determine prices and output. In addition, the dramatic changes in regulatory policy associated with the Telecommunications Act of 1996 have accelerated the pace of change and have provided further justification for granting increased regulatory flexibility for ILECs' access services. The 1996 Act, coupled with the Federal Communications Commission (FCC) Interconnection Order¹ allows competitors to substitute the unbundling provisions of the Act for the Part 69 access regime. This development dramatically increases the alternatives available to access customers and competitors, and it calls for elimination of the ILECs' burdensome asymmetric regulatory obligations and reduction of regulation of ILEC access services. Among our major conclusions are the following:

- In conjunction with technological changes and current market forces, the 1996 Act and the Interconnection Order accelerate competitive entry into the exchange access markets and thus increase the urgency in obtaining regulatory flexibility and reducing asymmetric regulation.

¹*Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, CC Docket No. 96-98, First Report and Order, 11 FCC Rcd 15499, 1996 (Interconnection Order); *Order on Reconsideration*, CC Docket No. 96-98, 11 FCC Rcd 13402, 1996 (Interconnection Reconsideration Order); *Petition for Review Pending and Partial Stay Granted, sub nom. Iowa Utilities Board et. al v. FCC*, No. 96-3321 and consolidated cases, 8th Cir., October 15, 1996; *Partial Stay Lifted in Part, Iowa Utilities Board et. al v. FCC*, No. 96-3321 and consolidated cases, 8th Cir., November 1, 1996.

- Unbundled network elements provide an effective substitute to the Part 69 access regime—as recognized by the Interconnection Order—and regulation should adapt accordingly.
- In light of these developments, sound economics and public policy require that market forces rather than a prescriptive approach be relied upon to determine efficient pricing and output parameters.
- Market forces provide for efficient outcomes and ensure minimization of the use of scarce resources. It is clear that when relying on market forces is an option—as is the case in the current context—it should always be used as the primary tool.
- A prescriptive approach is a return to cost-based rate-of-return regulation, such an approach would be a reversal of the incentive-improvement intentions of price cap regulation and subsequent reforms that the Commission has undertaken.
- A prescriptive approach would require detailed FCC intervention in the exchange access market and accurate forecasts of long-run competitive prices, a process that carries with it significant costs and risks of error, particularly in markets in which competition is present.
- A prescriptive approach is likely to confound desirable market outcomes and skew long run market dynamics.
- Regardless of the method of reforming the current access regime, the Commission should recognize the legitimacy of the ILEC's prudently-incurred costs and allow recovery of such costs—to the extent possible—through competitively neutral, nonbypassable charges.
- In setting an efficient level of regulatory constraints, the Commission should pursue a policy that not only prevents the exercise of market power by the ILEC but simultaneously regulates the ILEC and entrants as symmetrically as possible in all other dimensions. Such an approach would ensure that a provider's efficiencies and relative abilities to supply customer demands determine success in the market—not regulatory distortions.
- USTA's transition plan for streamlining regulatory constraints is an appropriate mechanism which takes into account the competitive nature of the market when lifting regulatory constraints and provides sufficient protection to prevent the exercise of market power.

- An interconnection agreement is evidence that timely entry is possible, and flexibility is needed to ensure that the entrant not obtain any net advantage on a forward-looking basis.
- USTA's plan which removes services from price cap regulation after a demonstration that actual competition exists and its emphasis on a geographic basis analysis is consistent with economic principles and provides for sufficient consumer protection.
- Price reductions are classified as anticompetitive when lower cost, more efficient competitors would be unable to compete in the face of such pricing tactics. While such practices may in fact occur, modern economic theory considers the probability that such pricing tactics could be profitable to be small. Given proper safeguards and current regulatory constraints, such pricing practices are highly unlikely to occur and the benefits of a market approach significantly outweigh the potential costs.

ECONOMIC ASPECTS OF ACCESS REFORM

I. INTRODUCTION

The Interconnection Order establishes a framework for the pricing of unbundled network elements based on forward-looking economic costs. Forces of competition—not regulation—will require carrier access to be priced on a similar basis. This will occur because of facilities-based access competition and the high degree of substitutability between carrier access services and unbundled network elements. At one level, the Interconnection Order recognizes the interrelated nature of unbundled network elements and the current access regime in that it permits ILECs to charge a portion of access rates over and above—on a temporary basis—the economic cost of the unbundled local switch.² On the other hand, the ability of competitive local exchange carriers (CLECs) to combine unbundled network elements to provide telecommunication services—including exchange access—effectively accelerates competitive entry into these markets thus increasing the urgency in obtaining regulatory flexibility and reducing asymmetric regulation.

Ultimately, the supply-side factors underlying access service are the same for local and long distance services, and thus the cost basis for pricing those services will be similar.³ Current prices of local exchange and carrier access services reflect different historical antecedents: (i) in the local exchange, local prices were set residually to complete the recovery of the ILEC's embedded intrastate costs; and (ii) for carrier access, prices were set originally to replace the historical contribution from interLATA toll service. Carrier access prices have subsequently been reduced by application of the Part 69 Rules, which called for increased subscriber line charges (SLCs) throughout the 1980s offset by lower carrier access charges, by

²Interconnection Order ¶ 720.

³Note that the demand for carrier access services can, in principle, differ from the demand for local interconnection so that the competitive market prices for local and long distance interconnection could differ.

separations and accounting changes that reduced carrier access revenue requirements and by the implementation of price cap regulation which reduced carrier access charges (in real terms) automatically every year. Parties agree that a transition of both sets of prices towards their competitive levels, as well as adaptation of other regulatory requirements—such as streamlined regulations, pricing flexibility and forbearance—is necessary if the goals of the Act are to be achieved successfully.

The transition from the current level of exchange access rates toward their competitive level has been underway for some time. In conjunction with the efficiency improvements elicited from price cap regulation,⁴ technological changes and market forces are restructuring the exchange access market, driving exchange access prices in some geographic areas toward their competitive level and increasing alternatives available to exchange access customers.⁵ Coupled with the Act and the Interconnection Order, these forces will accelerate the transition and introduce exchange access alternatives to all geographic areas. In light of these technological and market circumstances, sound economics and public policy require that market forces rather than a prescriptive approach be relied upon to determine efficient pricing and output parameters. A prescriptive regulatory approach is a return to cost-based rate-of-return regulation, and such an approach would reverse and undo the incentive-improvement intentions of price cap regulation and subsequent reforms. A prescriptive approach would

⁴*Policy and Rules Concerning Rates for Dominant Carriers*, Second Report and Order, CC Docket No. 87-313, 5 FCC Rcd 6786, 6818-20, 1990.

⁵By first quarter 1995 high capacity service losses to competitors were 39% in Philadelphia, 35% in Pittsburgh, 32% in Washington, D.C., 27% in Baltimore, 39% in Los Angeles, 37% in San Francisco, 50% in New York City and 37% in Boston. See USTA Reply Comments, *Price Cap Performance Review for Local Exchange Carriers*, CC Docket No. 94-1, filed January 11, 1996; By March 1995, CLECs and CAPs had 10-15% of the nationwide carrier access market and had forced BOCs to reduce rates on comparable services by 20-30% per year between 1991 and 1994. See Bernstein Research, *Telecommunications: Convergence and Divergence*, March, 1995; In high capacity special access and high capacity POP services, CAPs have gained 50% of NYNEX's market share in Manhattan and 44% in the Greater Metro region. See 1995 *State of Competition Report*, NYPSU, Section 4: Carrier Access Competition and Executive Overview, pp. 5-6; According to the FCC, "CAPs appear to have motivated local exchange carriers to price special access closer to cost." See Jonathan M. Krausharr, Industry Analysis Division, Common Carrier Bureau, *Fiber Deployment Update End of Year 1995*, p. 34.

require detailed FCC intervention in the exchange access market and accurate forecasts of long-run competitive prices, a process that carries with it significant costs and risks of error. In the early stages of competition, regulatory errors can have dramatic and long-lasting deleterious results. This has been documented in other regulated industries moving to competition.⁶ A better course would be to allow market forces to determine the pace of reform, as envisioned in the Telecommunications Act of 1996. The Commission should contemplate prescriptive remedies only as a last resort, after convincing evidence that market forces and the requirements of the Act and the Interconnection Order have failed to reform the exchange access market.

Regardless of the method of reforming the current access regime, the Commission should recognize the legitimacy of the ILEC's prudently-incurred costs and should permit recovery of such costs—to the extent possible—through competitively neutral, nonbypassable charges. By failing to recognize these costs incurred as part of the regulatory compact, the regulatory agency would engage in ex-post opportunism which would lead to disastrous consequences regarding the ability of the agency to make credible future commitments. The exchange access market provides a vivid example of the regulatory bargain. Allocation of ILEC costs to the interstate jurisdiction is a principal explanation for the difference between current access rates and more competitive levels.⁷ The allocation of ILEC costs to the interstate jurisdiction was not a mistake or a symptom of ILEC inefficiency but the result of the explicit public policy objective—on both the state and Federal level—of maintaining low basic service

⁶Robert G. Harris, "Toward Regulatory Symmetry in Local Exchange Services: Lessons From Financial Services and Freight Transportation," presented to the Industrial Organization Society Allied Social Science Associations, San Francisco, January 5, 1996; W. Kip Viscusi, John M. Vernon, and Joseph E. Harrington, Jr., *The Economics of Regulation and Antitrust*, Chapter 17, Second Edition, The MIT Press, 1996.

⁷In 1995, the carrier common line (CCL) charge comprised 34% of the total per-minute switched access charges. See *In the Matter of Access Charge Reform, Price Cap Performance Review for Local Exchange Carriers, Transport Structure and Pricing and Usage of the Public Switched Network by Information Service and Internet Access Providers*, CC Docket Nos. 96-262, 94-1, 91-213, 96-263, Table 1 (Access NPRM).

prices.⁸ Economic efficiency as well as equity require that the Commission recognize and equitably resolve the long-run problems created by its previous regulations.

In setting an efficient level of regulatory constraints, the Commission should pursue a policy that prevents the exercise of market power by the ILEC while simultaneously regulating the ILEC and entrants as symmetrically as possible in all other dimensions. Such an approach would ensure that each provider's efficiencies and relative abilities to supply customer demands would determine its success in the market—not its ability to profit from regulatory distortions. USTA's proposed transition plan for streamlining regulatory constraints reflects the competitive nature of the market and provides sufficient protection to prevent the exercise of market power. Under this approach a state-approved interconnection agreement or Statement of Generally Available Terms is sufficient to obtain Phase I relief. Phase I would maintain the service under price cap regulation but would allow for: (i) volume and term discounts; (ii) deaveraging access services; (iii) contract tariffs; (iv) simplified basket structure; (v) elimination of Part 69 rate element rules; and (vi) deregulation of new services. Once an interconnection agreement becomes effective and there is a demonstration of actual competition and actual competitors are competing, services on a geographic area basis can be placed in a Phase II category. At this stage, it is appropriate to remove the service(s) from price cap regulation because market forces are sufficient to constrain prices.

⁸Affidavit of James M. Fischer, Albert P. Halprin, Henry Rivera, and Marvin Weatherly, "Implications of the Separations Legacy for Implementation of the Telecommunications Act of 1996," United States Telephone Association Comments, Docket No. 96-262 et.al, Attachment 2 (USTA Comments); Robert W. Crandall, *After the Breakup U.S. Telecommunications in a More Competitive Era*, The Brookings Institution, Washington, D.C., 1996, p. 24 (After the Breakup). Crandall asserts that decreasing toll costs as a result of microwave transmission allowed regulators to "mask" the shift in costs to the interstate jurisdiction.

II. TRANSITION TO COMPETITIVE ACCESS PRICES

A. The Need for Change

While the price structure which arose from explicit regulatory policies to fund basic rates from interstate pricing was inefficient and distorted consumption and investment patterns, it was sustainable under the Bell System monopoly. The divergence between current access carrier rates and those that would pertain in a more competitive market are the result of separations policy, underdepreciation of assets and specific universal service programs.⁹ Therefore, it is incorrect to view the divergence as resulting from ILEC inefficiencies that needs to be written off the books.

Today, the need for change arises because of competition: (i) technological change reduces per-unit costs and encourages entry; (ii) inefficient rate designs are incompatible with competition and lead to uneconomic entry; and most recently (iii) provisions of the 1996 Act increase the alternatives available to competitors, substantially reducing barriers to entry.

1. Current technological change and competition will force access rates to efficient levels

In addition to the regulatory changes opening the exchange access market to competition and the inefficient rate design adding to entry incentives, technological change is continuing to reduce per-unit costs for entrants and incumbents alike. Any alleged natural monopoly conditions are nonexistent in high-density urban areas, and regulatory constraints should adapt accordingly.¹⁰ The high rate of technological innovation in the industry, coupled

⁹Affidavit of Fisher et.al., "Implications of the Separations Legacy for Implementation of the Telecommunications Act of 1996," USTA Comments, Attachment 2; Affidavit of J.H. Rohlf, "The Depreciation Shortfall," USTA Comments, Attachment 14.

¹⁰Richard T. Shin and John S. Ying, "Unnatural Monopolies in Local Telephone," *RAND Journal*, vol. 23, Summer, 1992, pp. 171-83.

with elimination of regulatory entry barriers and the interconnection provisions of the Act, will be sufficient to constrain pricing for carrier access services.

2. Economic Pricing Principles

The inefficient rate structure of carrier access charges has distorted the levels of consumption and investment and, in particular, increased the likelihood of uneconomic entry. The need for a more efficient rate structure, while always desirable on economic grounds, becomes more critical as competition increases. Sound economic principles support an efficient and rational rate design that follows cost-causation principles regardless of the amount or degree of competition present.

The key principle is that the costs of a service should be recovered from the customer whose usage causes that cost to be incurred. Ultimately, this principle always shifts cost recovery to the final customer but, in addition, assigns costs to customers on the proper basis. Non-traffic sensitive (NTS) costs should be recovered on a flat basis and not on a per minute, usage-sensitive basis. Recovering non-traffic sensitive costs on a flat basis eliminates economic distortions such as over or under-recovery of costs from particular customers. Pricing dedicated facilities on a usage-sensitive basis provides perverse incentives for customers not to use the network in situations where the benefit from using the network exceeds the true costs of using it, thus providing uneconomic incentives to reduce traffic volumes. Low usage customers would pay less than the true cost of the dedicated facility and would have an incentive to add lines that they would not add if they had to pay the full cost. With a flat rate, on the other hand, users pay the full cost and no more.

For these reasons, we agree with the Commission's conclusion that several provisions of Part 69 compel ILECs to impose charges for access services in a manner that does not accurately reflect the way they incur the costs of providing those services.¹¹ Rate design

¹¹Access NPRM ¶ 55.

modifications will improve economic efficiency and better reflect the way LECs incur costs, ultimately benefiting the competitive process and customers alike. In light of the Joint Board's recommendation to the Commission concerning subscriber line charges,¹² a portion of NTS subscriber plant costs can be recovered from IXC's in a manner which is economically rational and will not distort efficiency. Thus, improvements in the utilization of telecommunications facilities can be achieved without having to increase subscriber line charges to end users. It is clear from a theoretical perspective that collecting NTS subscriber plant costs from IXC's on a per minute usage-sensitive basis through the CCL charge has reduced economic welfare and distorted consumption and investment patterns. The Commission, therefore, should put in place a mechanism which collects CCL charges from IXC's in a manner that is consistent with the way costs are incurred, thus improving economic welfare.

We believe that recovering CCL charges through a flat, per-line charge paid by IXC's improves economic welfare and sends more efficient price signals than recovering such charges on a usage-sensitive basis. The FCC's proposed approach assessing the charge against each customer's presubscribed interexchange carrier (PIC) has the advantage of having low transactions costs. While such a system improves economic efficiency, it may encourage end users not to presubscribe to an IXC, especially if—as economic theory predicts—input prices charged to IXC's are passed through to end users. For those end users that try to avoid this charge by not presubscribing, it is efficient to recover the charge directly from the end user.

Rational rate design principles should also permit CCL deaveraging by customer and by region, thus sending improved price signals and leading to better utilization of telecommunications facilities. Deaveraging the flat per-line CCL charge is consistent with cost-causation principles since costs vary with population density and geographic characteristics; prices should thus reflect such variances. Failing to deaverage the CCL while

¹²*In the Matter of Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, released November 8, 1996, ¶ 754.

unbundled loops are deaveraged in arbitration proceedings would not permit ILECs to set prices consistently, thereby increasing the likelihood of arbitrage and uneconomic entry.

In addition, for residential connections beyond the primary connection, SLC increases are not necessary to improve economic efficiency. In fact one needs to recognize the substantial transactions and administrative costs associated with accurately identifying the target group which tend to lessen the benefits associated with SLC increases. Therefore, flat CCL charges for residential connections beyond the primary connections are an appropriate mechanism to recover such costs.

In addition, LECs should be afforded the flexibility to modify existing inefficient rate design associated with other network elements so as to encourage efficient utilization of the telecommunications infrastructure. Costs associated with line-side ports or line cards are not traffic sensitive and, therefore, LECs should be allowed to recover these costs on a flat-rated basis. Similarly, call set-up costs vary by the number of calls placed and attempted. Accordingly, flexibility to modify inefficient rate design is appropriate but should be driven by market realities not overly prescriptive rate structure rules. While peak load pricing is consistent with cost-causation principles, the decision to implement such pricing must compare the benefits of such pricing to increased measurement and administrative costs, especially in light of the decreasing peak/off-peak nature of digital switches and fiber transport costs.¹³ To the extent that technological change alleviates capacity constraints in switching and transport, welfare benefits associated with peak load pricing are reduced. In addition, welfare benefits are likely to be reduced in the carrier access context because it is an intermediate good and end users make consumption decisions based on the final good price.

¹³Using data from GTE in Ohio on local calling, Edward Rolla Park and Bridger Mitchell show that theoretical welfare gains from peak load pricing are reduced by transactional costs associated with a small number of discrete prices. See "Optimal Peak-Load Pricing for Local Telephone Calls," Technical Report R-3404-1-RC, RAND.

According to the FCC, the Transport Interconnection Charge (TIC) is a rate designed to recover the difference between the revenues the ILECs would have realized under the equal charge per unit of traffic rate structure and the revenues they would realize from the interim facility-based transport rates, including the remaining 80 percent of the tandem revenue requirement.¹⁴ To the extent that tandem costs are being recovered from users who may not even use the tandem—and therefore not cause any tandem costs to be incurred—such a policy does not follow cost-causation principles and should be modified. ILECs should be allowed to recover tandem costs from users who cause tandem costs to be incurred, and only such cost recovery would be consistent with economic efficiency. Similarly, to the extent other TIC costs can be identified and attributed to specific services, this should be recovered from those services.

Cost-causation principles should apply to all actions that incur costs regardless of any special public policy considerations such as encouraging Internet usage. While such policy goals may be laudable, an inefficient rate design that fails to reflect accurately the way LECs incur the costs of providing services ultimately undermines such goals. In the case of enhanced service providers (ESPs), the costs imposed on the network are similar to those imposed by end users and IXCs. Accordingly, ESPs should be governed by the same modified access regime that will be applicable to other market participants. In the absence of such a policy, users will be given improper pricing signals thus distorting efficient levels of consumption and adversely affecting both incumbent LECs' and potential entrants investment incentives.

3. The Act and the Order create a need for change

The need for regulatory flexibility increases substantially in light of the 1996 Act and the Interconnection Order because of the increased availability of substitutes for services available under the Part 69 access regime. Rules for combining unbundled elements, resale and

¹⁴ Access NPRM ¶ 82.

payment of carrier access charges affect the access regime. Even prior to the Act, the Part 69 access structure was vulnerable to bypass through either customer self-provision or competitive access providers (CAPs) who began to provide certain elements of carrier access by exploiting cost-savings and technological changes occurring in transmission. In this case, however, CAPs who interconnected with the ILEC had to pay the TIC which minimized the impact of arbitrage opportunities. In essence, in order to avoid the TIC a CAP would have to bypass the entire facilities of the LEC and provide end to end service—a more costly proposition than simply bypassing transport. The 1996 Act, as interpreted by the Interconnection Order, completely changes this requirement and increases the pace of competition in the exchange access market. For this reason, it is imperative that there be consistent rules for combining unbundled elements, resale and payments of carrier access charges. Given the substitutability between unbundled elements, carrier access, and local access, the Commission must arrive at a solution that eliminates incentives for artificially-driven arbitrage and allows the market to decide the most efficient provision of carrier access and local access. USTA's reliance on a market-based approach permits the market to determine efficient provision of carrier access and local access.

Under the terms of the Interconnection Order, unbundled network elements may be combined to provide a total exchange access service equivalent to conventional access service—provided that the competitor “wins” the end user. This allows a CLEC, for example, to purchase unbundled loops, local switching, signaling, and transport to provide exchange access.¹⁵ In essence, a competitor need not invest in loops, switches or transport to provide exchange access. The Interconnection Order also concludes that operations support systems and the information they contain are network elements. Competitors will be able to electronically bond with the ILEC's pre-ordering, ordering, provisioning, maintenance and repair and billing systems. This ability provides competitors with nondiscriminatory operations

¹⁵The pricing of unbundled network elements, of course, determines the margin and extent of bypass. The FCC's pricing rules currently unresolved given the Stay in the 8th circuit. However, a number of states are proceeding to resolve pricing issues under the terms of the Act.

support systems, which in turn minimizes the ability of the ILEC to engage in non-price discrimination. While we may not agree with every aspect of the unbundling rules contained in the Order, if the Commission is going to interpret the Act in this way, it becomes more urgent to grant flexibility to the ILEC. These requirements act to prevent or limit ILECs from exercising market power in access markets. Because of this, increased regulatory flexibility is appropriate.

4. ILECs Require an Opportunity to Recover Embedded Costs under Either a Market or a Prescriptive Approach.

While the Commission must decide on the appropriate mechanism to move current access rates to more competitive levels, prudently-made privately-funded investments which were approved by regulatory agencies to provide ubiquitous telecommunications service must not be overlooked in the new competitive environment. The ILECs must have an opportunity to recover prudently-incurred costs regardless of the mechanism used to move rates to more competitive levels. Whatever specific modifications to existing access charges are made—and we agree that access charges should move closer to their competitive level¹⁶—provision must be made, during the period of transition to competition and eventual deregulation, for a reasonable opportunity to recover all prudently-incurred embedded costs.

a. Economic Reasons for Recovery of Stranded costs

There are important economic reasons for making provision, at the outset of the transition to full competition in the local exchange, for the ILECs to have a reasonable opportunity to recover all of their prudently-incurred historical costs. First and foremost is the critical importance for efficiency of predictability in business and regulatory arrangements, including the ability to rely on clearly defined legal institutions. The inability of regulators to stand by commitments made in prior regulatory regimes entails explicit economic costs:

¹⁶Indeed, we are persuaded that market forces will push in this direction even without action by regulators.

- it undermines investor faith in the institutional framework and is likely to raise the capital costs of incumbents relative to entrants;
- it reduces a firm's incentive to invest, especially in geographic areas and or for customer classes that are economically unremunerative; and
- it distorts the incentives of entrants. Because the existing regulated price structure cannot by any stretch of the imagination be thought to reflect the economic costs of providing service(s), it is important to assure, to the extent practicable, that such entry as occurs is based on an entrant's ability to provide service in a more efficient manner, i.e. at a lower social cost, than the incumbent, and not simply at a lower price that avoids the other firm's regulatory requirements and simply reflects regulatory opportunism that transfers wealth from shareholders to customers without real social benefits.

Although telephone (as well as electric, water, gas, etc.) companies are referred to as public utilities—and do indeed enjoy certain privileges as well as bear certain obligations that firms in other industries do not—those subject to FCC and state regulatory authority are for the most part privately owned entities that must rely on investors to voluntarily provide them with capital. Because regulators are powerless to compel provision of necessary capital, but are urgently concerned with maintaining broadly available and high quality service, as well as limiting market power, a clear understanding of the terms on which capital will be provided was necessary. While the understandings that underpinned those terms have sometimes been referred to as the regulatory “compact” or “bargain”, or even “contract”, no specific resolution of terminology is required to understand what is at issue here.¹⁷

In an economic world that is based on private investment the neglect of due process with respect to private property could be debilitating—and highly counterproductive to the achievement of the goals of the policy changes themselves. The introduction of competition in telecommunications aims to improve efficiency, and guide investment incentives more

¹⁷Affidavit of J. Gregory Sidak and Daniel F. Spulber, USTA Comments, Attachment 3. Sidak and Spulber argue that the regulatory contract is an enforceable legal relationship and that compelling economic arguments confirm the need for such a contract between the local exchange carrier and the state. The standard remedy for the regulator's breach is damages for lost expectations as is the remedy for breach of any contract.

effectively than has regulation. Undermining investors' expectations across a broad portion of the existing industry seems unlikely to make a positive contribution to this outcome. Whether or not the current suppliers of telecommunications services prevail over, or are overcome by, the new entrants in the long term, they will be critical players in the near term and, it should be noted, will remain the instruments of government regulatory and social policies as well—at least for the short run. Concern over the ability to meet policy goals, as well as simple fairness, should compel regulators to take seriously the concerns of current investors. The utilities' very ability to attract capital on economically efficient terms is at issue.

Nor should the (currently) unregulated competitors be entirely indifferent to this issue: a regime that is free to exact a taking on regulated firms when it appears that the introduction of competition will benefit consumers (and we indeed think that is likely to be the case) is unlikely to hesitate in imposing further restrictions if the results of competition (whether or not efficient) turn out to be not to its liking. To paraphrase Alfred Kahn, today's policy flip can easily become tomorrow's flop. An enduring respect for private property rights is the foundation of effective regulatory reform, clearly including the reform of access charges as policymakers prepare for the introduction of competition at all levels of the telephone industry.

b. Recent Federal Energy Regulatory Commission Pronouncement on Stranded Costs

In the electricity industry, federal and most state regulators have recognized the legitimacy and importance for policy purposes of allowing a reasonable opportunity for recovery of potentially stranded costs. In its Order 888, the Federal Energy Regulatory Commission (FERC) expressed its policy determination by reaffirming:

...our preliminary determination that the recovery of legitimate, prudent and verifiable stranded costs should be allowed...We will not ignore the effects of recent significant statutory and regulatory changes on the past investment decisions of utilities. While, as some commenters point out, there has always been some risk that a utility would lose a particular customer, in the past that risk was smaller. It was not unreasonable for the utility to plan to continue serving the needs of its wholesale requirements customers and retail customers,

and for those customers to expect the utility to plan to meet future customer needs. With the new open access, the risk of losing a customer is radically increased.¹⁸

Similar, and perhaps even more radical, statutory and regulatory changes have taken place in the telecommunications industry. The Commission should carefully examine the FERC's reasoning and rationale for recognizing that past investment decisions made in a heavily regulated setting were made with, indeed in reliance upon, an understanding that the companies would have an opportunity (but not a guarantee) for recovery. Telecommunications investors in regulated firms have provided capital to this industry with precisely the same understanding, and their legitimate interests are entitled to the same deference. As noted above, such recognition of interests, and deference to them by the regulatory process, contributes to, and does not detract from, the policy goal of effective and efficient competition.

c. USTA's proposal provides for an economically-efficient mechanism for stranded cost recovery

The important policy requirement is that the Commission acknowledge the fundamental legitimacy of recovery, acknowledge as well the fact that such recovery can be effected in a competitively neutral manner, and set out broad criteria which proposals for recovery must meet. Only then will parties move beyond posturing and strategic behavior to a careful articulation of the real issues.

For these reasons, we believe that USTA's proposal to permit price cap LECs to recover the depreciation shortfall—reflecting past regulatory policies which created a divergence between book value of plant and its economic value in use—on an accelerated basis from IXCs is appropriate. In order to prevent distortions and guarantee efficient price signals, a flat

¹⁸*Promoting Wholesale Competition Through Open Access Non-discriminatory Transmission Services by Public Utilities and Recovery of Stranded Costs by Public Utilities and Transmitting Utilities*, Federal Energy Regulatory Commission, Docket Nos. RM95-8-000 and RM94-7-001, Order No. 800 Final Rule, issued April 24, 1996.

charge—as contained in USTA’s proposal—is preferred. As discussed above, these costs were incurred with the assurance by Federal and state policymakers of granting the LECs a reasonable opportunity to recover them and reflects a policy of maintaining basic rates low. To the extent that failure to rely on economic depreciation rates have benefited IXC’s by, all else equal, maintaining access rates lower than they would have been, it is efficient for those who have benefited to bear the costs.

B. Market Approach vs. Prescriptive Approach

In choosing the appropriate mechanism to transition from current access rates to levels which more accurately reflect costs, the Commission should rely on current market forces and the unbundling requirements of the Act rather than a prescriptive approach which would require increased and highly detailed FCC intervention in the country’s telecommunications market. A prescriptive approach is static in nature and is likely to fail to adapt to continually changing supply and demand dynamics—thus confounding desirable market outcomes. Administrative rigidity virtually ensures efficiency losses. A prescriptive approach should be a last resort to be used only if there were to be considerable evidence that current market forces and the unbundling provisions of the Act are insufficient to reform the current access market.

1. Why Market Approach is Preferable

Before the Commission contemplates implementing a prescriptive approach to access reform, the market process must be given an opportunity to determine efficient pricing levels. The historical basis for regulating public utilities was the belief that in the presence of substantial economies of scale, market forces would tend to eliminate all but a few large sellers and indeed, that in the case of public utilities, per-unit costs would be minimized when there is only one firm in the market. Under such conditions, regulation had to be substituted for market forces as the principal determinant of pricing, output and entry, and in particular, to ensure that the benefits of the lower costs of this type of organization could be passed through to customers. However, regulation should substitute for market forces only after a clear

recognition that market forces are insufficient to produce efficient results and adequately constrain market power.

The decision to rely on market forces permits use of more efficient mechanisms to recover shared and common cost, including volume and term discounts and other forms of non-linear pricing, that would be hard to employ in a more prescriptive approach. Market forces more closely align consumer preferences and taste with costs than can ever be expected under a prescriptive approach—thus greatly improving efficiency. Relying on market forces guarantees that society's scarce resources are put to their most productive needs and ensures economic efficiency. A prescriptive approach distorts efficient outcomes and would significantly increase the involvement of the Commission at a time when competition and market forces should be the principal mechanisms in determining efficient output levels. It is clear that when relying on market forces is an option to allocate scarce resources—as is the case in the current context—it should always be used as the primary tool.

Relying on market forces also is consistent with the current price cap mechanism which, combined with marketplace developments, has already reduced access charges without reliance on prescriptive mechanisms beyond the price cap rules themselves.¹⁹ Allowing market forces, in conjunction with the unbundling requirements of the Act and the current price cap mechanism, to drive rates to more competitive levels leads to efficient outcomes and maximizes consumer welfare.

In deciding to use market forces or a prescriptive approach to move access rates to rates which more accurately reflect their competitive level, the Commission should allow current market forces and the unbundling provisions of the Act to reform rates. There is no evidence that these forces are insufficient or will be insufficient to change current access rates to levels which more accurately reflect costs. In fact, the Commission's temporary imposition of access

¹⁹Since 1991 the national average of interstate access charges (premium switched service in cents per minute) has decreased by 15.9%. See FCC Monitoring Report, Table 5.11.

charges on the unbundled switch element in the Interconnection Order indicates a determination by the Commission that competitors would be able to use current technological advancements coupled with regulatory rules to compete effectively and obtain access revenues.²⁰

A prescriptive approach that moves access rates to levels which more accurately reflect competitive levels over a certain time period runs the risk of not being sustainable due to the presence of market forces and the unbundling requirement of the Act. For example, a prescriptive approach which moves current access rates over a five-year period may run the risk of not being sustainable, and worse irrelevant, if market forces constrain access rates prior to the end of the five-year period. A prescriptive approach does not eliminate the fact that market forces and the unbundling requirements of the Act will continue to reform the access market. A prescriptive approach, therefore, becomes all the more difficult and may become irrelevant in the presence of market forces. Worse, a prescriptive approach may confound desirable market outcomes.

2. Why a Prescriptive Approach is Not Necessary

a. TELRIC/TSLRIC is not an appropriate estimation for market prices

In deciding to use a prescriptive approach to move current access rates to competitive levels, the Commission would need to determine an appropriate estimate of market-based access rates. While TELRIC/TSLRIC may be an appropriate starting point as a price floor,²¹ it is not a good estimate of the market price of access in a competitive, unregulated market. For a multiproduct firm with substantial fixed costs, incremental cost pricing is unsustainable in the long run and does not allow a firm to recover all of its economic costs of production. Allowing

²⁰Paul W. MacAvoy, *The Failure of Antitrust and Regulation to Establish Competition in Long-Distance Telephone Services*, The MIT Press, Cambridge, Massachusetts and The AEI Press Washington D.C., 1996, Figure 5-11 (The Failure of Antitrust).

²¹The proper criteria relating to cross-subsidy requires that each service's revenue exceed incremental costs and that the same be true for each combination of services. See William J. Baumol, *Superfairness*, The MIT Press, Cambridge, Massachusetts, 1986, Chapter 6 (Superfairness).

market forces to determine the mechanisms to recover shared and common costs results in more efficient pricing than one in which the Commission arbitrarily allocates shared and common costs to services. Also, TELRIC should not be used as a basis for pricing or setting price floors for services, simply by adding up the TELRICs of elements used to provide the service.²²

(1) The relationship between competitive market prices and forward-looking economic costs.

In the presence of scale economies and multiproduct production, marginal cost pricing is inconsistent with the economic viability of the firm. Marginal cost is defined as the change in the firm's total cost function for a one unit change in output and necessarily fails to include any contribution to fixed costs. Large fixed costs, however, are a primary source of scale economies because they are shared across more units of output as output increases. Under such conditions prices equal to marginal costs fail to recover the firm's total costs of production and lead to insolvency.

Many economists agree that in the face of substantial fixed costs and scale economies, marginal cost pricing fails to recover a firm's economic costs. For example, William J. Baumol states:

For it is equally well known that if the firm's production process is subject to economies of scale, the requirement that prices be set equal to marginal costs is a recipe for bankruptcy. Under economies of scale, the revenues yielded by marginal-cost pricing will necessarily fall short of the total costs of the firm's output.²³

In addition, Franklin M. Fisher states:

Real-world firms often face downward sloping demand curves because of product differentiation and therefore set price somewhat above marginal cost

²² Such an approach fails to capture economies of scope between services and fails to recover common and shared-fixed costs.

²³ William J. Baumol and J. Gregory Sidak, *Toward Competition in Local Telephony*, American Enterprise Institute, Washington D.C., 1994.

even when they sell in markets that are effectively competitive. IXCs might well need some or all of the lost net revenues to cover fixed costs, and therefore, one must not think of IXCs' loss of net revenues necessarily will be a sacrifice of supra-competitive profits.²⁴

Experience from other industries indicates that in the face of significant fixed costs, prices systematically exceed marginal costs. In the domestic long-distance telecommunications market, marginal cost estimates vary between \$.01 to \$.02 cents per minute of use (plus access charges if one excludes marketing expenses and plant), to \$.05 cents per minute of use (plus access charges, if one does include marketing expenses and plant.)²⁵ Given current switched access charges of \$.0604 per conversation minute,²⁶ both estimates of marginal costs lie significantly below currently tariffed rates maintained on file at the Commission. To size the problem, it is instructive to compare the price-cost margins in long distance with the price-cost margin currently embedded in carrier access charges. Using 1994 AT&T data, we observe that AT&T's revenue per minute for long distance services averaged 18 cents while it paid an average of 6 cents for carrier access.²⁷ Adding 2 cents incremental cost leaves a price-cost margin of 10 cents per minute for AT&T.²⁸ In contrast, the LECs charge an average of 6 cents per minute for carrier access whose incremental cost is roughly 1 cent per conversation minute

²⁴Franklin M. Fisher, "An Analysis of Switched Access Pricing and the Telecommunications Act of 1996," on Behalf of MCI, 1996.

²⁵Robert W. Crandall and Leonard Waverman, *Talk is Cheap: The Promise of Regulatory Reform in North American Telecommunications*, The Brookings Institution, Washington D.C., 1996 (Talk is Cheap); Paul W. MacAvoy, *The Failure of Antitrust and Regulation to Establish Competition in Long-Distance Telephone Services*, The MIT Press, Cambridge, Massachusetts and The AEI Press, Washington D.C., 1996 (The Failure of Antitrust).

²⁶FCC Monitoring Report, CC Docket No. 87-339, May 1996, Table 5-11.

²⁷In its *ex parte* before the FCC in CC Docket No. 94-1, March 21, 1994, AT&T stated that in 1994, its average revenue per minute averaged 18 cents and its average access expense per minute averaged 6 cents.

²⁸Contribution kept by AT&T averages 18 - 6 - 2 or 10 cents per minute. Toll and access incremental costs are taken from Robert W. Crandall, *After the Breakup: U.S. Telecommunications in a More Competitive Era*, The Brookings Institution, Washington D.C., 1991, pp. 138-141; Lewis J. Perl and Jonathan Falk, "The Use of Econometric Analysis in Estimating Marginal Cost," Presented at Bellcore and Bell Canada Industry Forum, San Diego, California, April 6, 1989, Table 2. The costs are obviously averages and vary a great deal across jurisdictions, times of day and technologies.

(roughly 0.5 cents per access minute). Thus regulated carrier access charges impose approximately half the burden (per minute) of pricing above cost than IXCs in the unregulated and—in the Commission’s view—reasonably competitive long-distance market impose.

In addition, Paul W. MacAvoy finds a price-cost margin for Message Toll Service (MTS) of 55% for AT&T in 1985, increasing to approximately 68% for AT&T in 1994.²⁹ MacAvoy also finds price cost-margins for AT&T Standard Service and Reach Out America Discount Calling Plan of 55% in 1989, increasing to approximately 65% in 1995.³⁰

International markets also provide evidence that one does not observe marginal cost pricing in other telecommunication markets. Marginal costs in the international telecommunications market—calls from the United States to foreign cities—tend to be higher due to the international settlement process, which consist of charges the originating IXC pays the foreign carrier for transporting and switching the call from the international gateway to the destination location. Price-cost margins for AT&T ranged from 45% (calls to Mexico) to 90% (calls to France); for MCI from 40% (calls to the Dominican Republic) to 84% (calls to the United Kingdom); and Sprint from 41% (calls to the Dominican Republic) to 84% (calls to Japan and the United Kingdom).³¹

(2) Proxy cost models such as the Hatfield model should not be used

Incremental costs must measure the value of the goods and services that society would *actually* forego when it chooses to consume an increment of demand for telephone service

²⁹*The Failure of Antitrust*, Figure 5-1.

³⁰*Ibid.*, Figure 5-11.

³¹*The Failure of Antitrust*, Table 5-16; In addition, existing empirical work on price-cost margins reveals that marginal cost pricing is not the norm in other industries as well. Estimates of price-cost margins range from .648 for tobacco to .072 for textiles. See Timothy F. Bresnahan, “Empirical Studies of Industries with Market Power,” *Handbook of Industrial Organization*, Volume II, Edited by R. Schmalensee and R.D. Willig, Elsevier Science Publishers B.V., 1989; See also Dennis W. Carlton and Jeffrey M. Perloff, *Modern Industrial Organization*, Harper Collins Publishers, 1990, Chapter 12.

supplied by an efficient firm. Proxy cost models such as the Hatfield model do not produce the forward-looking economic costs of an efficient entrant because efficient entrants do not construct a network instantaneously to serve the entire market demand. Networks of efficient firms in the real world are constructed over time to provide capacity to serve uncertain and growing demand throughout the service territory. Prices cannot fall to levels indicated by installing ubiquitously the most efficient technology at any instant. An efficient firm in the real world adds capacity to its existing plant thus accounting for the trade-off between lower unit costs for larger installations and the costs of carrying unused capacity over time.³²

b. Efficient input prices are not a precondition for efficient competition

In its Interconnection Order, the Commission noted that since switched access currently provides important universal service subsidies, the Commission decided not to remove or significantly reduce this subsidy flow because of its “desire to err on the side of caution where universal service may be implicated.”³³ Therefore, at a minimum, until a new comprehensive universal service funding mechanism is in place, total-element, long-run incremental cost (TELRIC) pricing for access should not even be considered. In fact, use of this pricing method is not necessary for the Commission to promote interexchange competition.

If TELRIC costs are used to set switched access prices, one or more of the following three events will occur: (i) local exchange rates will be increased; (ii) explicit universal service subsidies will increase dramatically; or (iii) ILECs will suffer significant financial losses. This last “option” promotes inefficient competition and hinders ILEC network-deployment incentives. It may not be undesirable to increase local exchange rates or explicit subsidies if this is necessary to achieve a specific policy goal, such as promoting efficient entry. However, this is clearly not the case in the interexchange market. In its Interconnection Order, the

³²*Ibid.*, p. 6.

³³Interconnection Order ¶ 719.